Remarks

In this Response, claims 1 – 4, 7, 13, 15 – 16, and 18 have been amended; claims 9 and 20 have been cancelled without prejudice; and claim 27 and 28 have been added. Support for these amendments is found throughout the originally submitted application. No new matter has been added.

Claims 1 – 8, 10 – 19, and 21 – 28 are pending.

35 USC § 112 Rejections

In the Office Action claims 2, 4, 7, 9, 13, 15, 18, and 20 are rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. In particular, the Examiner states that it is not clear from the specification how the location of the spreading code (or pseudo noise code) corresponds to the value of the information signal. Claim 9 and 20 have been cancelled rendering their rejections moot.

Claim 2, and claim 1 on which it depends, has been amended. It now recites that the spreading code corresponds to a value of the information signal based at least in part on a position of the spreading code within the codebook. As will be described below, this limitation is adequately supported and thoroughly explained in the specification.

Various portions of the specification clearly teach how spreading codes correspond to values of information signals based at least in part on the location of the codes within the codebook. See, e.g., page 3, line 6 of the present application, which recites "[m]ultiple bits of information signal may be sent at a time by using the location of the pseudo-noise code within the codebook such that the value of the information signal corresponds [to] the location of the pseudo-noise code within the codebook." For another example, see page 5, line 20 of the present application, which further teaches that the position of the code is used to encode multiple bits of information. The discussion continues on page 6 with reference to Figure 2(b).

The examples given with reference to Figure 2(b) make it clear that in order to represent a three bit information signal a codebook may have eight codes to account for the eight possible bit-combinations that the information signal may have. Each possible

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bit-combination may be uniquely represented by a numerical value, 0 – 7. The position that each code is located within the codebook may determine which information signal, and hence which numerical value, it represents. The first code of the codebook corresponds to an information signal '000', which has numeric value of zero; the second code of the codebook corresponds to an information signal '001', which has a numeric value of one; and so on. So, as this description makes clear, if a binary information signal '101' was to be sent (numeric value of five), the sixth spreading code, which is located in the fifth codebook position, may be transmitted. Note that the fifth codebook position corresponds to the sixth spreading code because the zero codebook position corresponds to the first spreading code. See, e.g., Figure 3.

Figures 3 and 4 and the accompanying description go on to give additional examples of this codebook indexing. In Figure 3, the codebook positions along the left hand side may correspond to the numeric values of the information signal. The code used to represent a particular information signal is the one in the position of the codebook that corresponds to the numeric value of the information signal. Thus, as Figure 4 makes clear, code C will represent a two-bit information signal having a numeric value of two, i.e., '10', for user 1; code G will represent a two-bit information signal having a numeric value of two, i.e., '10', for user 2; and code K will represent a three-bit information signal having a numeric value of two, i.e., '010', for user 3.

For at least these reasons the specification clearly enables a person skilled in the relevant arts to practice the embodiment of claim 2 without undue experimentation.

Claims 4, 7, 13, 15, and 18 depend from, or include elements similar to, claim 2.

Accordingly, the Applicants respectfully request that the Examiner withdraw this rejection of these claims.

35 USC § 102 Rejections

In the Office Action, claims 1, 3, 5 – 6, 8, 10 – 11, and 22 – 26 are rejected under 35 U.S.C. 102(b) as being unpatentable over LeStrat et al. (US 5,559,829) (hereinafter "LeStrat") and, separately, over Rice (US 5,210,770) (hereinafter "Rice").

Claim 1 has been amended to include limitations similar to those presented in claim 12, which was indicated as allowable by the Examiner. Claims 3, 5 – 6, 8, 10 – 11, and 22 – 26 depend from claim 1. Accordingly, these claims are patentable over these references for at least the same reasons as claim 12. Applicants respectfully request that the Examiner withdraw these rejections of these claims.

Allowable subject matter

In the Office Action claims 12, 14, 16, 17, 19, and 21 are allowed. The Applicants thank Examiner for this indication of allowable claims.

New Claims

The Applicants have taken this opportunity to present claims 27 and 28. These claims depend on claims 1 and 12 and are patentable for at least the same reasons as the underlying independent claims. Therefore, the Applicants respectfully request that the Examiner allow these claims.

Conclusion

The Applicants respectfully submit that the above claims present patentable subject matter and therefore request early issuance of Notice of Allowance.

The Commissioner is hereby authorized to charge shortages or credit overpayments to Deposit Account No. 500393.

Should there be any lingering questions, the Applicants invite the Examiner to call the undersigned to have the questions resolved to allow the subject application to expeditiously pass to issuance.

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Dated: 05/11/2007   /Nathan R. Maki/
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Application No. 09/002,747
Attorney Docket No. 111027-150370

IPN P5112